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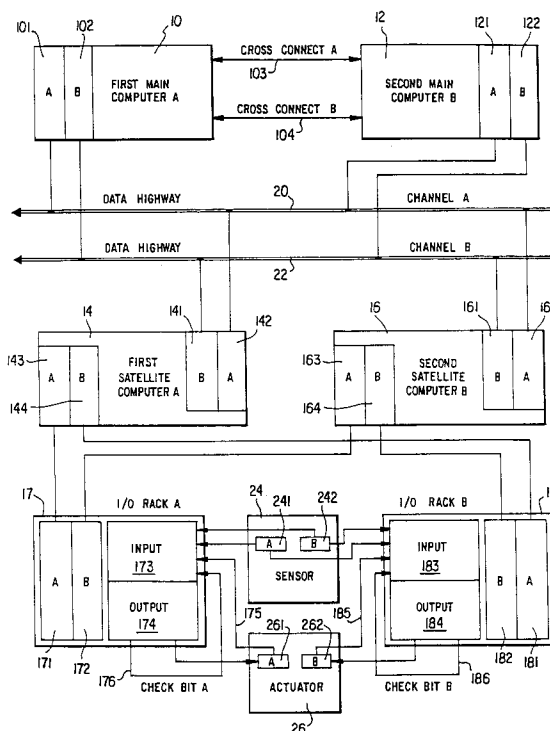
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DE GB IT(88) Date of deferred publication of the search report:
18.03.92 Bulletin 92/12(71) Applicant: **AEG WESTINGHOUSE
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AEG Aktiengesellschaft Patente u. Lizenzen
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W-6000 Frankfurt am Main 70(DE)**(54) **Computer network for real time control with automatic fault identification and by-pass.**

(57) A computer network for real time control having redundant components for automated fault identification and automated bypass of identified faulty components. The system includes at least two main computers, each coupled to at least two independent parallel data channels. A plurality of satellite computer pairs are connected to these channels, each pair receiving information from a plurality of I/O racks which are connected to redundant sensors for detecting information and to redundant actuators for implementing system control. The main computers are continuously cross linked and perform evaluation of their respective input and output streams comparing these streams for consistency between the main computers. In the event that an inconsistency is detected in the data streams, the system checks for faulty components to determine the origin of the inconsistency. The system utilizes an evaluation method whereby each main computer independently accesses each of the parallel data channels, satellite computers, I/O racks, sensors and actuators to locate inconsistencies in the data stream. The system then allows for operation with one of the redundant components while the identified defective redundant component is repaired or replaced.

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EUROPEAN SEARCH REPORT

Application Number

EP 90 10 8869

DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.5)
A	IEEE MICRO. vol. 7, no. 5, October 1987, NEW YORK US pages 27 - 50; H.D. KIRRMANN ET AL.: 'Fault Tolerance in Process Control: An Overview and Examples of European Products' * page 33, left column, line 1 - page 34, right column, line 23 * *	1	G 06 F 11/16 G 05 B 9/03
A	8TH ANNUAL INTERNATIONAL CONFERENCE ON FAULT-TOLERANT COMPUTING, FTCS-8, JUNE 21-23, 1978 TOULOUSE, FR pages 144 - 149; D.A. RENNELS ET AL.: 'A Study of Standard Building Blocks for the Design of Fault-Tolerant Distributed Computer Systems' * page 148, left column, line 11 - page 149, left column, line 38 * *	1	
A	FR-A-2 561 410 (MERLIN GERIN) * page 1, line 36 - page 3, line 16 *** page 4, line 17 - page 5, line 12 *** page 10, line 4 - page 11, line 22 * *	1,2	
A	EP-A-0 229 559 (CIMSA SINTRA) * column 3, line 4 - column 4, line 54 *** column 6, line 22 - column 7, line 18; figure 1 * *	1	
The present search report has been drawn up for all claims			TECHNICAL FIELDS SEARCHED (Int. Cl.5)
			G 06 F G 05 B
Place of search		Date of completion of search	Examiner
The Hague		20 January 92	HERREMAN,G.L.O.
CATEGORY OF CITED DOCUMENTS			
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